



SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS

2008

RTP
REGIONAL TRANSPORTATION PLAN

Making the Connections

***Environmental
Justice Report***

DRAFT

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ENVIRONMENTAL JUSTICE

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“No person in the United States shall, on the ground of race, color, or national origin be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.”

- Title VI of the Civil Rights Act of 1964

Overview

BACKGROUND

The U.S. Environmental Protection Agency (EPA) defines environmental justice as “the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.” Additionally, “it will be achieved when everyone enjoys the same degree of protection from environmental and health hazards and equal access to the decision-making process to have a healthy environment in which to live, learn, and work.”

The environmental justice movement stem from Title VI of the Civil Rights Act of 1964. Title VI of the Civil Rights Act of 1964 provides one very significant means by which the public can seek greater accountability from transportation agencies. Title VI states that “No person in the United States shall, on the ground of race, color or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.” Additionally, Title VI not only bars intentional discrimination, but also unjustified disparate impact discrimination. Disparate impacts result from policies and practices that are neutral on their face (i.e., there is no evidence of intentional discrimination), but have the effect of discrimination on protected groups.¹

¹ CommunityLink 21, Regional Transportation Plan: Equity and Accessibility Performance Indicators <http://www.fhwa.dot.gov/environment/ejustice/case/case4.htm>

Under federal policy, all federal agencies must make environmental justice part of their mission and adhere to “three fundamental environmental justice principles:

- To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations.
- To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.
- To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.”

Environmental justice is an integral part of the planning process, which must be considered in all phases of planning. As the designated Metropolitan Planning Organization (MPO) for six counties, the Southern California Association of Governments (SCAG) is mandated by the federal government to prepare a Regional Transportation Plan (RTP) every four years to address the region’s transportation needs. The previous RTP was adopted in April 2004. The RTP represents the collective vision of the six counties in the SCAG region and provides a framework for the future development of our regional transportation system.

SCAG’S Environmental Justice Policy

As a government agency that receives federal funding, SCAG seeks to achieve, at a minimum, compliance with federal environmental justice principles, policies, and regulations described above. As such, SCAG’s goal is to ensure that its programs and plans do not create disproportionate adverse impacts for low-income and minority people in the region. The following outline SCAG’s environmental justice compliance policy.²

- SCAG is committed to being a leader among the nation’s metropolitan planning organizations in its analysis of the environmental, health

² http://scag.ca.gov/environment/pdfs/ej_title6.pdf

& safety, and economic impacts of its programs on minority and low-income populations.

- SCAG will provide early and meaningful public access to decision making processes to all interested parties, including minority and low-income populations.
- SCAG will seek out and consider the input of traditionally underrepresented groups, such as minority and low-income populations, in the transportation planning process.
- When disputes arise, it is SCAG's adopted policy to make the fullest possible use of alternative dispute resolution (ADR) techniques, including mediation and consensus building.
- When disproportionately high and adverse impacts on minority or low-income populations are identified, SCAG will take steps to propose mitigation measures or consider alternative approaches.
- SCAG will continue to evaluate and respond as needed to environmental justice issues that arise during the implementation of regional plans.

Transportation investment decisions are largely a product of long-range planning. With billions of dollars at stake, local, regional, and state transportation agencies develop long-range plans to set spending priorities. Ensuring that the benefits of these investments are distributed equitably is an important element of environmental justice. This section discusses SCAG's environmental justice efforts in the long-range transportation planning process.

Regulatory Requirements

In the 1990's, the federal executive branch issued orders on environmental justice that amplified Title VI, in part by providing protections on the basis of income as well as race. These included President Clinton's Executive Order 12898 (1994) and subsequent U.S. Department of Transportation (DOT) and Federal Highway Administration orders (1997 and 1998, respectively), along with a 1999 DOT guidance memorandum. These are further described below.

As previously described, Title VI of the Civil Rights Act of 1964 states that "No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." In short, Title VI makes MPOs accountable for their planning and investment decisions. Title VI became the legal underpinning for the environmental justice movement.

On February 11, 1994, President Clinton signed Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations in response to growing concern over environmental effects on minority and low-income communities, including human health, social, and economic effects. Executive Order 12898 requires each Federal agency, to the greatest extent allowed by law, to administer and implement its programs, policies, and activities that affect human health or the environment in order to identify and avoid "disproportionately high and adverse" effects on minority and low-income populations.³

In April 1997, DOT Order on Environmental Justice to Address Environmental Justice in Minority Populations and Low-Income Populations (DOT Order 5610.2) was issued. Reaffirming the principles set forth by Title VI and Executive Order 12898, this generally described the process for incorporating social, economic, environmental, public health and welfare, and public involvement into all DOT existing programs, policies, and activities.⁴

In December 1998, the FHWA issued FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (DOT Order 6640.23). This requires the FHWA to implement the principles of the DOT Order 5610.2 and Executive Order 12898 by incorporating environmental justice principles in all FHWA programs, policies and activities.⁵

³ <http://www.fhwa.dot.gov/environment/ejustice/facts/index.htm>

⁴ Ibid.

⁵ Ibid.

Executive Order 12898 and the DOT Orders were further clarified in a Memorandum jointly issued by FHWA and the Federal Transit Administration (FTA) on October 7, 1999. The Memorandum, Implementing Title VI Requirements in Metropolitan and Statewide Planning, emphasized the importance of incorporating environmental justice principles during transportation project development as well as in the processes and products of transportation planning. Compliance with Title VI is normally evaluated by the federal Department of Transportation during triennial certification reviews of metropolitan planning organizations such as SCAG. The Memorandum provides clarification for field offices on how to ensure that environmental justice is considered during current and future planning certification reviews. Additionally, this included a set of questions to be used by FTA regional and FHWA division administrators during certification reviews. The questions make clear that DOT expects MPOs to analyze the equity of service and the distribution of the associated impacts on minority and low-income groups. In addition, MPOs are expected to reach out to traditionally underrepresented groups, even to the extent of providing financial assistance, to assure that they can participate meaningfully in the transportation planning process.⁶

Snapshot of the Region

SCAG functions as a Council of Governments (COG) and has evolved as the largest of nearly 700 COGs in the United States. SCAG also functions as the MPO for six counties: Los Angeles, Orange, San Bernardino, Riverside, Ventura and Imperial. As such, it is governed by a Regional Council consisting of 76 local elected officials from around the six-county region. As the MPO, SCAG is mandated by the federal government to research and draw up plans for transportation, growth management, hazardous waste management, and air quality.

The SCAG region is uniquely large, with geographically dispersed commercial and residential centers. The region encompasses a population exceeding 18 million persons in an area of more than 38,000 square miles. The region

includes heavily urban and entirely rural areas, as well as terrain features that make air quality goals difficult to achieve. Demographically, it is one of the most diverse regions in the country, already becoming the first to experience a white minority, and encompassing the extremes in household income. Furthermore, it is projected to continue to experience dramatic population growth (see Table 1: Projected Demographic Changes in the SCAG Region, 2008-2035).

Since 2000, population in the region has increased by almost 1.5 million or about 300,000 per year, matching its highest level of average annual increase during the 1980s. During the year 2005, the SCAG region added 222,000 residents, close to 9% of the total growth in the nation. By the end of 2005, the total population in the region reached over 18.2 million, representing 6.1% of the population in the nation and close to half in the state.⁷ According to the baseline forecast, the region will add 5.9 million people to reach 24 million people by 2035. Supporting this population in 2035 will be 2.5 million new jobs for a total of 10.3 million. This level of population growth is expected to yield 2 million additional households in the region at an average of three persons per household.

⁶ http://scag.ca.gov/environment/pdfs/ej_title6.pdf

⁷ http://scag.ca.gov/publications/pdf/2006/SOTR06/SOTR06_Population.pdf

TABLE 1 PROJECTED DEMOGRAPHIC CHANGES IN THE SCAG REGION, 2008-2035

Region	2008	2035
Population	18,909,603	24,056,246
Households	5,926,983	7,710,312
White	35.2%	23.4%
Non-white	64.8%	76.6%
African American	7.0%	6.1%
Native American	0.4%	0.5%
Asian/ Pac. Islander	10.6%	11.4%
Other	2.8%	3.2%
Hispanic	44.0%	55.4%
Over 65	10.2%	15.9%
Disabled	8.5%	9.4%
Below Poverty*	13.7%	14.5%
Below 1.5 x Poverty	8.6%	9.1%
Below 2 x Poverty	8.3%	8.5%
Income Quintile 1	20.0%	20.0%
Income Quintile 2	20.0%	20.0%
Income Quintile 3	20.0%	20.0%
Income Quintile 4	20.0%	20.0%
Income Quintile 5	20.0%	20.0%

One important demographic dynamic at work in Southern California include the continuing change in the ethnic/racial composition. The share of the Hispanic population reached 44% in 2005, about a 4% increase from 2000 and a dramatic increase from only 10% in 1960. The share of the Asian/Pacific Islander population increased from 2% in 1960 to over 11% in 2005. Since 1960, the share of the non-Hispanic White population declined from about 80 to 39% in 2000 and 36% in 2005. The share of African-American population in the region was just below 7% in 2005. Since 2000, the vast majority (80%) of the growth in the region were Hispanics.⁸

⁸ Ibid.

Between 2000 and 2005, the SCAG region performed better every year in job growth rates relative to the rest of the state and the nation. In 2005, the region achieved a slightly higher rate of job growth (1.7%) than the rest of the state (1.4%) and the nation (1.5%).⁹

In 2005, the region achieved its lowest unemployment rate (5%) since 1988, and a slightly lower unemployment rate than the national average, the first time since 1990. From 2004 to 2005, the unemployment rate in the region dropped from 6% to 5%. During the same period, the unemployment rate declined from 5.5 to 5.1% nationally, while it dropped from 6.2 to 5.4% in the state.¹⁰

In the SCAG region, 14% of residents lived in poverty in 2005, a slight decrease from 2004 (14.3%) though continuing to be higher than that of the state (13.3%) and the nation (12.6 %). In addition, about 20% of children under 18 were below the poverty line in 2005, little changed from 2000. The poverty rate was highest for female-headed households (25%) and lowest for persons aged 65 and over (8.9%). In 2005, the SCAG region continued to have the highest poverty rate (14%) for all people among the 9 largest metropolitan regions in the nation followed by the Dallas region (13.3%), while the Washington D.C. region achieved the lowest poverty rate of only 7.9%.¹¹

Public Involvement in Transportation Planning

The awareness and involvement of interested persons in governmental processes are critical to successful regional transportation planning and programming. When the public is engaged in the process, their feedback helps assure projects address community needs. Likewise, the public gains a better understanding of the tradeoffs and constraints associated with transportation planning. To ensure compliance with federal and state requirements, SCAG is required to implement a public involvement process to provide complete information, timely public notice and full public access to key decisions

⁹ http://scag.ca.gov/publications/pdf/2006/SOTR06/SOTR06_Economy.pdf

¹⁰ Ibid.

¹¹ http://scag.ca.gov/publications/pdf/2006/SOTR06/SOTR06_Economy.pdf

and to support early and continuing public involvement in developing its regional plans.

As a metropolitan planning organization (MPO), SCAG is responsible for preparing and utilizing a Plan which is developed in consultation with all interested parties and provides reasonable opportunities for interested parties to comment on the content of SCAG's Regional Transportation Plan (RTP), pursuant to the "Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users" (SAFETEA-LU), Pub. L. No. 109-59, Title VI, Section 6001(a), 119 Stat. 1839 (Aug. 10, 2005).

Public outreach efforts are intended to assure that all members of the public have an opportunity to participate meaningfully in the planning process. An in-depth description of SCAG's RTP public outreach efforts is included in a previous section, Overview of the Regional Transportation Plan. This is summarized below.

- **Create departmentally Integrated Core Outreach Team**
SCAG holds regular coordination meetings with the principal staff in all planning areas and consultants associated with each of the various outreach efforts.
- **Update Existing and Create New Presentation Materials**
Provide clear, consistent and concise primary messages for media and public involvement and interaction using a variety of formats: powerpoints, fact sheets, surveys, brochures, maps, white papers, newsletter (eVision).
- **Enhance Website Capabilities**
Utilize SCAG's website to provide information on the RTP. SCAG works to ensure that the information available is timely, easy-to-understand and accessible and that the website is compliant with the 1990 Ameri-

cans with Disabilities Act. SCAG's RTP and the environmental justice program have individual websites dedicated to each.¹².

- **Coordinate Outreach Efforts with other Stakeholder Organizations**
Together with subregional partners and other stakeholder organizations, SCAG notifies interested parties through traditional meeting announcements, newspapers, public service announcements, press releases, special mailers, publications and agendas of committees, meetings, workshops, briefings, web site postings, email communications and other opportunities to participate, as appropriate.
- **Create an Outreach Schedule**
SCAG proactively contacts groups to schedule speakers from the pool of available speakers, as appropriate, to meet the interests of the particular group. Additionally, SCAG staff conducts presentations, hold briefings, workshops, hearings to diverse groups and organizations throughout the region.
- **Conduct Public Workshops related to the RTP**
Announcement of public workshops are transmitted via in printed materials, on SCAG's website, and in local newspapers. Workshops are held throughout planning process and target minority and low-income communities throughout the region. Follow-up workshops are held with groups that want to stay involved throughout the planning cycle. Translation services are provided at these public workshops.
- **Reach Out to Traditionally Underrepresented and/or Underserved Audiences**
SCAG works with Member Relations staff and Subregional Coordinators to aid in identifying underrepresented segments of the region. SCAG coordinates with individuals, institutions or organizations to reach out to members in the affected minority and/or low income communities.

¹² RTP Website: <http://scag.ca.gov/rtp2008/>

EJ Website: <http://scag.ca.gov/environment/ej.htm>

- Consider and Incorporate Comments Received into the Deliberations Regarding Proposed Plans and Programs

This involves review and consideration of all public comments in the regional transportation planning process. Additionally, SCAG will record, track and maintain a log of comments and SCAG's response to the comments within the Communication Management Software System (CMS), SCAG's contact database system.

- Evaluate Public Participation Activities

SCAG evaluates public participation efforts so that necessary modifications can be made. This enhances the outreach program to better serve the underrepresented segments of the region.

As part of the environmental justice outreach effort, SCAG staff compiled of a list of key stakeholders that will be used for environmental justice outreach efforts. This list is comprised of persons and organizations involved with the 2004 RTP, as well as additional stakeholders that were recommended by the South Coast Air Quality Management District's (SCAQMD) Environmental Justice Working Group. Key stakeholder groups included non-profit organizations, advocacy groups, Native American tribes, neighborhood coalitions, environmental and public health organizations, industry, business owners, and other interested parties. There are currently 150 members. SCAG staff is actively soliciting input on the stakeholder list.

On September 19, 2007, SCAG held the first Environmental Justice Workshop for the 2008 Regional Transportation Plan (RTP) at the main office in downtown Los Angeles, with videoconferencing available at the Inland office. Spanish translation was made available for participants. Workshop information was disseminated via electronic and paper notices mailed to the stakeholder list and follow up phone calls to organizations lacking email addresses. Additionally, SCAG's website was utilized to provide information to the public.

The intent of the Workshop was threefold: 1) present general information on SCAG's Environmental Justice Program; 2) review the previous environmental justice analysis in the 2004 RTP; and 3) obtain input from the public on the

environmental justice analysis for the 2008 RTP. There were approximately 17 participants in attendance representing various stakeholder groups, which included non-profit organizations, advocacy groups, neighborhood coalitions, environmental and public health organizations, industry, business owners, and other interested parties. The public comments received were recorded and have been considered by SCAG in the development of the 2008 RTP. Input was also received on the stakeholder list. These organizations and/or persons were added to the existing outreach list.

SCAG staff is committed to building partnerships with key stakeholder groups in order to ensure that underrepresented communities are fully engaged throughout the planning process. As part of the ongoing outreach efforts, a number of workshops will be scheduled after the release of the Draft 2008 RTP. The upcoming events will involve workshops throughout the region and presentations to various community-based organizations.

Methodology

A central component of long-range plan development is measuring how well the plan is able to achieve the goals of a community. As such, the goal of the 2008 RTP environmental justice analysis is to ensure that when transportation decisions are made, low-income and minority communities have ample opportunity to participate in the decision-making process and receive an equitable distribution of benefits and not a disproportionate share of burdens.¹³

IDENTIFYING DEMOGRAPHIC GROUPS

Identifying low-income and minority populations is necessary both for conducting effective public participation and for assessing the distribution of benefits and burdens of transportation plans and projects. For the purposes of this analysis, SCAG focused on all low-income groups and minority populations. The definitions are provided below.

¹³ Caltrans. Desktop Guide: Environmental Justice in Transportation Planning Investments. January 2003.

ETHNICITY/RACE

This phase of the analysis attempts to identify environmental impacts of the RTP that have the potential to affect different ethnic/racial groups. An environmental justice analysis must begin with demographic information, specifically, information on whether minority and low-income groups are present in the area affected by an agency plan. SCAG bases its analyses on the latest census data for ethnic/racial groups in the SCAG region, by census tract and by transportation analysis zone (TAZ).

Executive Order 12898 and the DOT and FHWA Orders on Environmental Justice define “minority” as persons belonging to any of the following groups, as well as “other” categories that are based on self-identification of individuals in the U.S. Census¹⁴:

- Black - a person having origins in any of the black racial groups of Africa.
- Hispanic - a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.
- Asian - a person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent.
- American Indian and Alaskan Native - a person having origins in any of the original people of North America and who maintains cultural identification through tribal affiliation or community recognition.
- Native Hawaiian or Other Pacific Islander - a person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

Other demographic populations considered in the environmental justice analysis include various age groups, specifically the elderly population (over 65 years of age); persons who are disabled or are mobility limited. For the purposes of this analysis, “persons with disabilities” are those who are individuals who meet the criteria set forth by the Americans with Disabilities Act (ADA)

¹⁴ <http://www.fhwa.dot.gov/environment/ej2000.htm>

and the U.S. Census Bureau. Persons identified as having a mobility limitation are those who have had a health condition that had lasted for 6 or more months and which made it difficult to go outside their home alone.¹⁵

The minority population in the SCAG region comprises over 70% of the population. The predominant minority groups are Hispanics and Asian/Pacific Islanders, which combine to account for 66% of the total minority population within the SCAG region.

POVERTY LEVEL

Poverty level is a federally established income guideline used to define persons who are economically disadvantaged, as defined by the U.S. Department of Health & Human Services guidelines.¹⁶ The poverty level applicable to the SCAG region is chosen on the basis of regional average household size for the census year. For example, for a regional mean of 2.98 persons - rounded to 3 - per household, the threshold would consist of the sum of the value for the first person plus two additional people. The household counts in each income range are then used to determine the number and percentage of households in each census tract below the poverty level. In 2007, a family of three earning less than \$17,170 was classified as living in poverty.¹⁷

INCOME

In addition to complying with federal guidance, SCAG also conducts income equity analyses based on five income quintiles. A quintile, by definition, is a category into which 20% of the ranked population falls. For each new analysis, SCAG defines regional income quintiles based on the most recent census data on household income. Once the income quintiles are established, the incidence of benefits and costs can be estimated and compared across these

¹⁵ http://www.census.gov/hhes/www/disability/disab_defn.html

¹⁶ White House Council on Environmental Quality (CEQ). Environmental Justice Guidance Under the National Environmental Policy Act, December 1997.

¹⁷ <http://aspe.hhs.gov/poverty/07poverty.shtml>

income categories. In addition, the demographics of any area smaller than the region can be analyzed in terms of the percentage of its population in each of the income quintiles. For example, income quintiles are fifths of the region's households, Quintile 1 represents the lowest fifth of households in terms of annual income and Quintile 5 the highest fifth of households.

TABLE 2 DEMOGRAPHIC CATEGORIES

Ethnic/Racial/Other Categories (persons)	Income Categories (households)
White (Non-Hispanic)	Below Poverty Level
African-American	100% - 150% of Poverty Level
Native American	150% - 200% of Poverty Level
Asian/Pacific Islander	Income Quintile 1 (lowest)
Hispanic (Latino)	Income Quintile 2
Other	Income Quintile 3
Disabled/Mobility Limited	Income Quintile 4
Age 65 and Above	Income Quintile 5

TABLE 3 INCOME DISTRIBUTION

Income Quintiles	Income Range
Income Quintile 1 (lowest)	\$0 to \$19,360
Income Quintile 2	\$19,361 to \$36,340
Income Quintile 3	\$36,341 to \$57,323
Income Quintile 4	\$57,324 to \$91,402
Income Quintile 5	\$91,403 and higher

Source: U.S. Census Bureau (2000)

DATA SOURCES

U.S. CENSUS

Data availability is critical in conducting an environmental justice analysis. Limited datasets or lack, thereof, can hinder an informed analysis of specific issues. Both “short form” information (Questions asked of all Americans, including age, race, and ethnicity) and “long form” data (Questions sent to a

sample of one in six households, which include additional information, such as income, employment status, education level, place of work, commuting travel mode and trip length, disability, language, and housing conditions) were utilized.¹⁸

Data sources used in this evaluation included the 2000 Census which provided detailed and accurate information at local geographic levels. For the purposes of this study, census data was analyzed using TAZ. A TAZ is an area delineated by state and/or local transportation officials for tabulating traffic-related data, especially journey-to-work and place-of-work statistics. TAZs usually consist of one or more census blocks, block groups, or census tracts. TAZ layers are not available for the entire nation, but are available for most major urban areas. The 2000 Census is the first to report data at the TAZ level. To analyze the distribution of regional transportation plan benefits, data at the TAZ-level is generally considered adequate.¹⁹

GEOGRAPHIC INFORMATION SYSTEMS

Geographic Information Systems (GIS) tools are often the most useful for evaluating and communicating the information above. A standard desktop computer with GIS software is now capable of extensive environmental justice evaluation using 2000 Census data .

AMERICAN TRAVEL SURVEY

The American Travel Survey was designed to obtain information about long-distance travel of persons living in the United States. The information is needed to identify characteristics of current use of the nation's transportation system, forecast future demand, analyze alternatives for investment in and

¹⁸ Caltrans. Desktop Guide: Environmental Justice in Transportation Planning Investments. January 2003.

¹⁹ Ibid.

development of the system, and assess the effects of Federal legislation and Federal and state regulations on the transportation system and its use.²⁰

AMERICAN HOUSING SURVEY

Every year, the American Housing Survey collects detailed data on housing stock, which includes race, income, household size, and work trip information. The data is gathered for the same 55,000 housing units nation-wide. In addition to this broad national sample, the survey is conducted for 47 metropolitan areas every 4 years, including the following seven metropolitan areas in California: Anaheim-Santa Ana, Los Angeles-Long Beach, Oakland, Sacramento, San Diego, San Francisco, and San Jose. In these areas, the American Housing Survey can be helpful to update older census data.²¹

NATIONAL HOUSEHOLD TRANSPORTATION SURVEY

Formerly the National Personal Transportation Survey (NHTS), this data source is useful for non-work transportation trips, and detailed information about travel modes. NHTS is a U.S. Department of Transportation (DOT) effort sponsored by the Bureau of Transportation Statistics (BTS) and the Federal Highway Administration (FHWA) to collect data on both long-distance and local travel by the American public. The joint survey gathers trip-related data such as mode of transportation, duration, distance and purpose of trip. It also gathers demographic, geographic, and economic data for analysis purposes. The most recent survey was prepared in 2001.²²

The Analysis

The environmental justice analysis for the 2008 RTP aims at improving and refining the analysis conducted for the 2004 RTP. The role of the transporta-

²⁰ U.S. Department of Transportation. Available at: http://www.bts.gov/publications/1995_american_travel_survey/

²¹ Ibid.

²² U.S. Department of Transportation. Available at: http://www.bts.gov/programs/national_household_travel_survey/

tion system is to enable people to reach their desired destinations in the most convenient and efficient manner. As such, a basic goal of the 2008 RTP is to “maximize mobility and accessibility for all people and goods in the region.” Mobility is the ability to travel and the potential for movement. It reflects the spatial structure of the transportation network and the level and quality of its service. Mobility is determined by such characteristics as road capacity and designed speed and, in the case of automobile mobility, by how many other people are using the roads. In contrast, accessibility measures how well the transportation system provides people access to opportunities.

Similar to the methodology applied to the 2004 RTP environmental justice analysis, accessibility was used as a performance measure instead of mobility. In general, accessibility has two critical advantages over mobility. First, it allows for comparison of alternative land use and transportation policies and focuses upon the level-of-service of the metropolitan system as a whole, rather than just the transportation system. Policies designed to increase the mixing of land uses can be compared to policies designed to increase the capacity of an intersection, for example, by answering the question: what effect does each have on accessibility? Second, accessibility as a planning goal provides clear direction for policy makers. While increased mobility may be a good thing, higher levels of accessibility are a good thing.

The comparison of the Baseline versus the Plan is the primary focus of the environmental justice analysis. The basic concept is to compare the performance of the Plan (2035) to the Baseline scenario for 2035. The Plan is the selected strategy to guide the Region’s transportation planning over the next few decades. Baseline is defined as the set of all projects and investments currently underway or for which funds are already committed. The Baseline represents “business as usual” and assumes current land use trends and the completion of projects currently under construction or with funding available for construction over the next few years. The data for the analysis is based on the SCAG regional travel demand model results.

The 2008 RTP environmental justice analysis applied a series of performance measures to the RTP investment alternatives. The performance measures were

intended to evaluate how low-income and minority communities fared under RTP investments. The performance measures and the results of the analysis are described in detail below.

PERFORMANCE MEASURES

A central component of long-range plan development is measuring how well the plan is able to achieve the goals of a community. Performance Measures provide a way to quantitatively assess the impact of the Plan. In the development of the Plan, SCAG utilized a number of performance measures designed to assess the overall equity.

- Accessibility
- Plan Expenditures/Investments
- Costs
- Time Savings
- Travel Distance Reductions
- Environmental Impact Analyses

ACCESSIBILITY TO EMPLOYMENT SERVICES

Accessibility is a foundation for social and economic interactions. As an indicator, accessibility is measured by the spatial distribution of potential destinations, the ease of reaching each destination, and the magnitude, quality and character of the activities at the destination sites. Travel costs are central: the lower the costs of travel in time and money terms, the more places that can be reached within a certain budget and, thus, the greater the accessibility. Destination choice is equally crucial: more destinations and the more varied the destinations, the higher the level of accessibility.²³

For the 2008 RTP, accessibility is defined as the percentage of the population who can travel between work and home within 30 minutes during the

PM peak period. SCAG staff has determined that access to employment is a reasonable proxy for access to all opportunities, since work trips make up a large percentage of total trips during commute periods. In this analysis, accessibility measures accessibility to employment services - the percentage of all regional jobs reachable within 30 minutes via 1) automobile; 2) local bus/urban rail via automobile; and 3) local bus/urban rail via walking.

Socioeconomic and transportation data are all held at the TAZ level. Socioeconomic data used the income quintiles previously described. These estimates are disaggregated to the TAZ level.

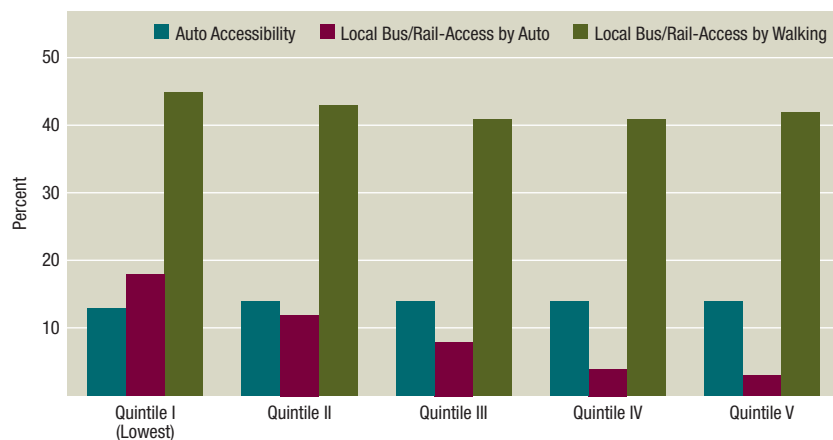
Results

Figure 1: Comparison of Accessibility Improvements by Travel Mode for Income Quintiles (Baseline v. Plan) shows the percentage improvement between Baseline versus the Plan. It is projected that low-income and minority communities in the region will have higher levels of access to employment via transit. This can be attributed to the presence of large concentrations of jobs and well-developed highway and transit networks. Additionally, the results indicate that accessibility to jobs by auto will remain relatively constant for all income groups. However, accessibility via automobile is expected to provide a lower level of access to jobs than transit for any quintile group.

The analysis concluded that all income groups should benefit equally from improvements in accessibility due to the 2008 RTP. Thus, the results indicate that disproportionate impacts between income groups, in terms of accessibility in the region to employment services by automobile or by transit, are not anticipated as a result of the Plan.

²³ CommunityLink 21, Regional Transportation Plan: Equity and Accessibility Performance Indicators <http://www.fhwa.dot.gov/environment/ejustice/case/case4.htm>

FIGURE 1 COMPARISON OF ACCESSIBILITY IMPROVEMENTS BY TRAVEL MODE FOR INCOME QUINTILES (BASELINE V. PLAN)



PLAN EXPENDITURES/INVESTMENTS

One of the most prominent environmental justice issues concerns the transportation expenditures/investment strategy. In this case, a disproportionate allocation of resources for various transit investments can indicate a pattern of discrimination. Such was the case in the landmark civil rights class action lawsuit *Labor/Community Strategy Center v. Los Angeles County Metropolitan Transportation Authority (MTA)* in October 1996. The lawsuit, which eventually led to a court-order Consent Decree, charged that the MTA operated separate and unequal bus and rail systems that discriminated against minority and low-income bus riders of Los Angeles.²⁴ As a regional MPO, SCAG aims to identify and address the Title VI of the Civil Rights Act and the environmental justice implications of their planning processes and investment decisions.

The 2008 RTP utilized a benefit assessment method that considered to what extent various socioeconomic groups were receiving value from existing and funded transportation investments. SCAG compared the total share of trans-

portation funding borne by low-income households against other income groups. In this analysis, SCAG reported expenditure distribution in several ways. First, SCAG estimated the share of total RTP expenditures allocated to each category of household income. This was done by totaling expenditures on each type of mode (bus, HOV lanes, commuter/high speed rail, highways/arterials, and light/heavy rail). These expenditures were then allocated to income categories based on each income group's use share of these modes. Since there are a number of privately funded transportation projects in the SCAG region, private and public projects were considered separately.²⁵

Results

FIGURE 2 PLAN EXPENDITURES BY INCOME GROUP

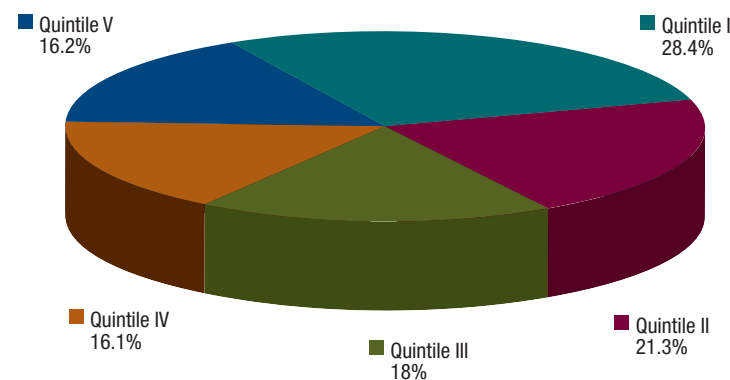


Figure 2: Plan Expenditures by Income Group presents the findings for percent of total expenditures, which looks at the raw dollars and compares the amounts spent on low-income and high-income households. The results in the 2004 RTP revealed that the lowest quintile group (Quintile I) received the lowest amount of transportation investments. In the current analysis, this is reversed. Approximately 28% of Plan expenditures will be allocated to

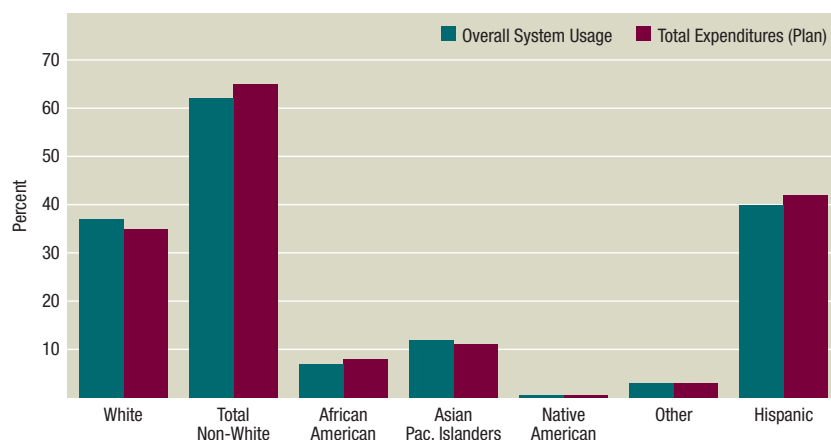
²⁴ U.S. Department of Transportation. Community Link21, Regional Transportation Plan: Equity and Accessibility Performance Indicators. Available at: <http://www.fhwa.dot.gov/environment/ejustice/case/case4.htm>

²⁵ Caltrans. Desktop Guide: Environmental Justice in Transportation Planning Investments. January 2003.

the lowest quintile group, while 16% will be invested for the highest income category (Quintile V).

In 2004, it was found that the lower three income quintiles received 57% of benefits of total Plan expenditures. The current analysis also found that Plan expenditures on programs and projects that are used by low-income households exceeded expenditures spent on households in the high-income category. Under the Plan, approximately 68% of expenditures would be focused on the three lower income quintiles. In other words, transportation investments would go to modes likeliest to be used by lower-income households.

FIGURE 3 PLAN EXPENDITURES BY ETHNIC/RACIAL CATEGORY



Expenditure distribution was also compared to various ethnic/racial categories. This data was also compared with Plan expenditures by mode. The 2004 RTP showed slight discrepancies between Plan expenditures and system usage. For Hispanics, the share of Plan expenditures (50%) was greater than this group's share of system usage (34%); for Whites, the share of Plan expenditures was at 30%, while their system usage was 46%; while for African-Americans, the share of Plan expenditures (9%) also exceeded their share of system usage (6%).

The current analysis reveals that under the 2008 RTP, Plan expenditures will be distributed more equitably on the basis of system usage by ethnic/racial groups. As shown in Figure 3: Plan Expenditures by Ethnic/Racial Category, for most ethnic and racial categories, the shares of Plan investments are similar to the shares of system usage, averaging a 1% difference in expenditure versus overall usage for each ethnic group.

COSTS (TAXES PAID)

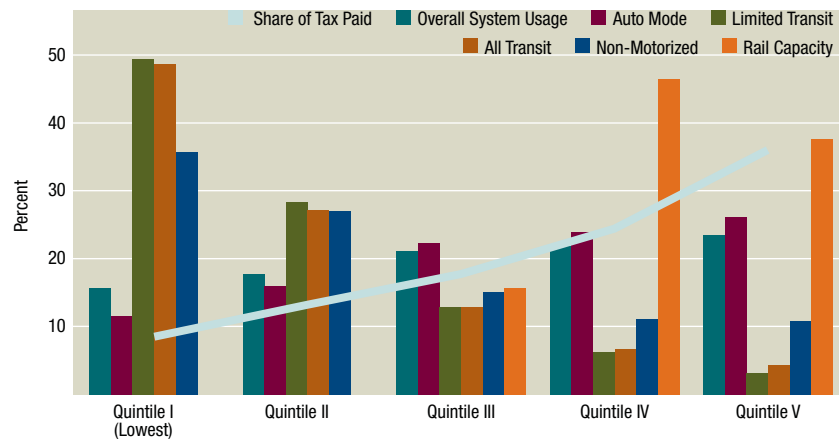
Costs were analyzed to demonstrate how tax burdens fall on various populations. The underlying concept is that the share of benefits should be roughly in line with the share of costs paid.

The 2008 RTP environmental justice analysis examined in detail, the incidence or distribution of, the burden of taxation. Sales and gasoline taxes, along with a portion of income taxes, are the primary sources of funding for the region's transportation system.

Results

The 2008 RTP environmental justice analysis performed a comparative analysis of the amount of taxes (sales, gasoline, and income) paid by five income groups. Figure 4: Share of Transportation Usage for Income Quintiles indicates that tax burdens are expected to fall heavily on higher-income groups. The three lower quintile groups are expected to pay for a total of 40% of taxes, while the highest quintile group (Quintile 5) account for 36% of overall taxes paid. Thus, those with limited financial means will not pay a disproportionate amount of overall taxes under the Plan.

FIGURE 4 SHARE OF TRANSPORTATION USAGE FOR INCOME QUINTILES*



*The contents in this chart use both work and non-work trips; Rail capacity uses only work trip data

*Share of Tax Paid includes sales and gasoline taxes.

DISTRIBUTION OF TIME SAVINGS

Methodology

Travel time savings was another performance measure SCAG analyzed to determine the share of benefits and burdens. For the 2008 RTP, transportation modeling results were used with data on mode usage by income groups to determine travel time savings. Results were calculated for trips made by automobile (the most common mode of travel) and for trips made by transit.

This analysis involved measuring the average travel time for both work trips and non-work trips. SCAG assessed the distribution of travel time savings that are expected to result from the Plan's implementation. By comparing current conditions with the year 2035 conditions predicted by the travel demand model, the total travel time savings by travel mode for each travel zone was determined. Using the demographics of each zone, an estimate for the time savings for each income group was able to be measured. SCAG conducted this analysis for automobile, transit, and low-cost transit (a subset of transit).

These travel time savings by group were reported as a proportion the total travel time savings for each mode.

Results

FIGURE 5 SHARE OF SYSTEM USAGE, TAX PAID & LOCAL TRANSIT TRAVEL TIME SAVINGS

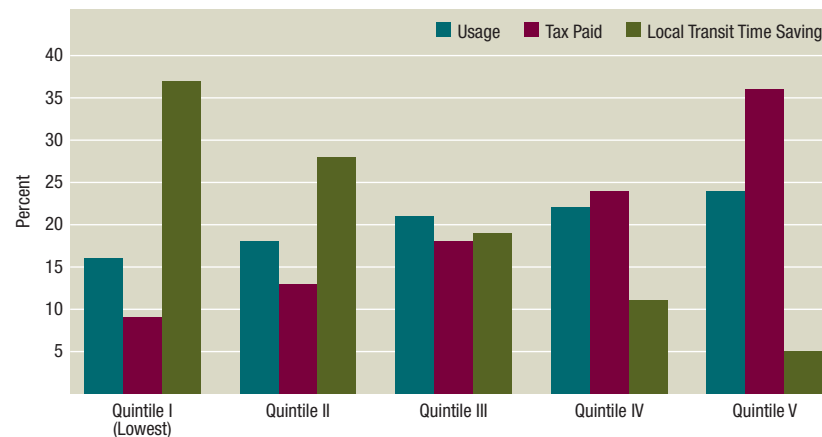


Figure 5: Share of System Usage, Tax Paid & Local Transit Travel Time Savings show the results for low-cost transit modes, such as local bus and urban rail, for the five income groups. Taxes paid by each quintile group, as shown in this analysis, remained consistent with the findings in the 2004 RTP analysis. The results in the 2008 RTP analysis indicate a significant rise in local transit savings for those households in Quintile I. This is a 14% increase from results in the 2004 RTP analysis.

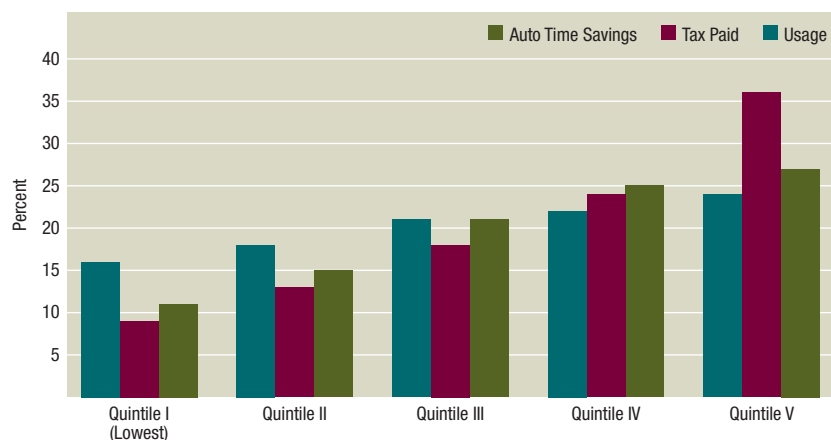
The results in the 2008 analysis also reveal that transit users in the two lowest income quintiles will pay just over 20% of total taxes collected in the region, but will enjoy over 60% of the local transit time savings. The two highest income quintile's share of taxes (61%) will exceed the benefits they receive in local transit time savings (16%), although accounting for nearly 50% of total usage. Thus, the findings indicate that those in the higher income groups

(Quintile IV and Quintile V) are expected to pay more for transit usage and their “willingness” to pay for time savings.

Results were also calculated for trips made by automobile. Figure 6: Share of System Usage, Tax Paid & Auto Travel Time Savings demonstrate that the share of auto time savings is roughly comparable to the share of taxes paid and transportation system usage between all income groups, with the exception of households in Quintile V. The amount of taxes paid by those in Quintile V (36%) will exceed their share of benefits (27%).

Also, the results indicate that the lowest quintile group will have the least amount of benefit with auto travel time accounting for 11% of auto time savings, while the highest quintile group will benefit the most. However, that benefit comes at a steep price, as the highest two income quintiles pay for 60% of total taxes. This is consistent with the results in the 2004 RTP.

FIGURE 6 SHARE OF SYSTEM USAGE, TAX PAID & AUTO TRAVEL TIME SAVINGS



TRAVEL DISTANCE REDUCTIONS

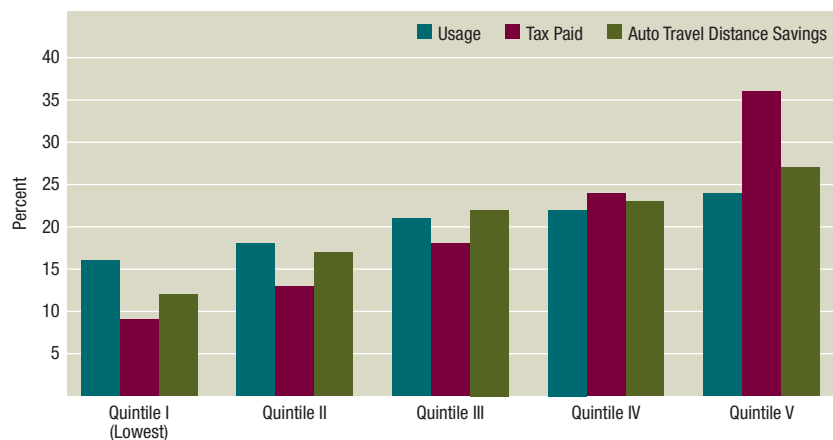
Methodology

Another way of estimating benefits is to calculate savings in terms of person-miles traveled (PMT). These results indicate that the share of driving distance savings, like that for time savings, generally resembles the share of usage and taxes paid. This is another way of estimating the benefits of land-use strategies – locating homes nearer to work places and intensifying land-use – reflected in the Plan.

Results

Figure 7: Share of System Usage, Tax Paid & Auto Travel Distance Savings displays that the share of auto travel distance savings is generally comparable to the share of taxes paid and transportation system usage between all income groups. Again, this is excluding households belonging in Quintile V. The taxes paid by the highest income group are anticipated to exceed their share of benefits. It is also interesting to note that the lowest quintile group is expected to have the least amount of benefits, accounting for 12% of auto travel distance savings. The highest quintile group will benefit the most. This is consistent with the results in the 2004 RTP.

FIGURE 7 SHARE OF SYSTEM USAGE, TAX PAID & AUTO TRAVEL DISTANCE SAVINGS



ENVIRONMENTAL IMPACTS

Transportation projects can have both a positive or negative impact on the environment. On the one hand, investments can cause travelers to shift to less polluting modes (e.g. bus, train, carpooling, or commuter rail). On the other hand, investments that increase traffic on a particular facility usually degrade air quality in the immediate vicinity of that facility.²⁶

Minorities and low-income groups may be particularly vulnerable to the effects of air pollution. SCAG's analysis was based on emissions estimates for pollutants that have localized health effects: carbon monoxide (CO) and particulate matter (PM). Analysis was also conducted for PM exhaust emissions from heavy-duty vehicles: an indicator for diesel toxic air contaminants. The results were computed based on the average emissions at the TAZ level and weighted according to the population of each ethnic or income group in that TAZ. This analysis focuses on air emissions and noise impacts generating from aviation and highways.

²⁶ Caltrans. Desktop Guide: Environmental Justice in Transportation Planning Investments. January 2003.

Transportation is a major source of noise. Intrusive noise can cause stress and degrade the quality of life for people in affected areas. In extreme cases, intrusive noise can pose a threat to hearing. New transportation facilities or other system changes that increase traffic levels will generally increase noise levels near the facility. Investments in sound walls or new pavement can help to mitigate vehicle noise.²⁷

Sound is measured on a non-linear scale in units of decibels. An adjusted scale, using A-weighted decibels [dB(A)], emphasizes those sound frequencies that humans hear best. On this scale, a 10 dB(A) increase is perceived as a doubling of sound. Sound above 65 dB(A) is considered annoying and sound above 125 dB(A) is painful. Noise generated from the transportation system generally falls above the annoyance level, but below that which is painful.²⁸

SCAG's analysis of noise considers two sources: aviation noise (from aircraft at the region's airports) and highway noise. While other transportation modes, such as trains, also create noise, insufficient data was available to analyze these impacts. Because of the differences in the data sources, and varying standards used to regulate the different sources, SCAG's analysis takes a different approach for aviation noise than for highway noise. Given the metrics used for the noise analyses, it is not appropriate to combine the data to estimate aggregate noise impacts of the Plan.²⁹

Results

Air Pollutant Emissions

It is important to note that total emissions of all pollutants in the region will decrease compared to existing conditions with or without the Plan, due to the combination of measures being taken to meet air quality standards. Since the Plan must demonstrate conformity with regional air quality management plans that call for reductions in emissions of air pollutants, the Plan itself will likewise result in reductions of pollutant emissions. This is generally because

²⁷ Ibid.

²⁸ Ibid.

²⁹ Ibid.

the Plan investments will alleviate roadway congestion and provide a greater range of alternatives to the use of a car. The following analysis, however, is based on a comparison of Plan to Baseline conditions, rather than a comparison of Plan to current conditions.

Since pollutant concentration levels could not be estimated, the geographic emissions distribution analysis presented here focuses on pollutants that tend to have localized effects which are generally proportionate to emissions – CO and fine particulate matter (PM10). The analysis does not cover pollutants that do not have localized effects proportionate to emissions, but are regionally distributed as a result of chemical interactions, photochemical reactions and meteorology (VOC, NOx, and SOx).

In addition to not being based on concentrations, this methodology assumes that all residents in a given TAZ are equally exposed. Generally both CO and PM10 tend to impact those located closest to the source of emissions. Thus, in a TAZ containing a roadway, those closest to the roadway would experience greater emissions and potential health impacts than those located further away. This difference, as it might exist within TAZ's, is not addressed by this analysis - only differences between the aggregate demographic totals of (different) TAZ's are addressed. Notwithstanding these assumptions, the methodology presents a reasonable gross measure of air quality impacts of mobile sources in the region.

FIGURE 8 PERCENTAGE CHANGE IN 2035 POLLUTANT EMISSIONS BY INCOME CATEGORY (PLAN VS. BASELINE)

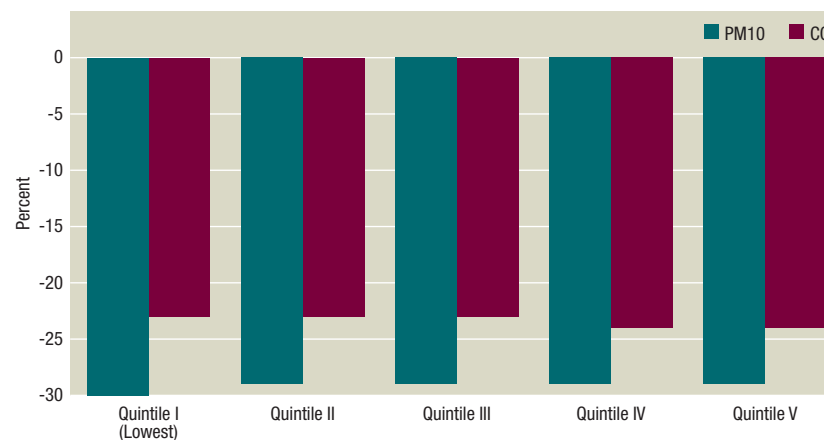
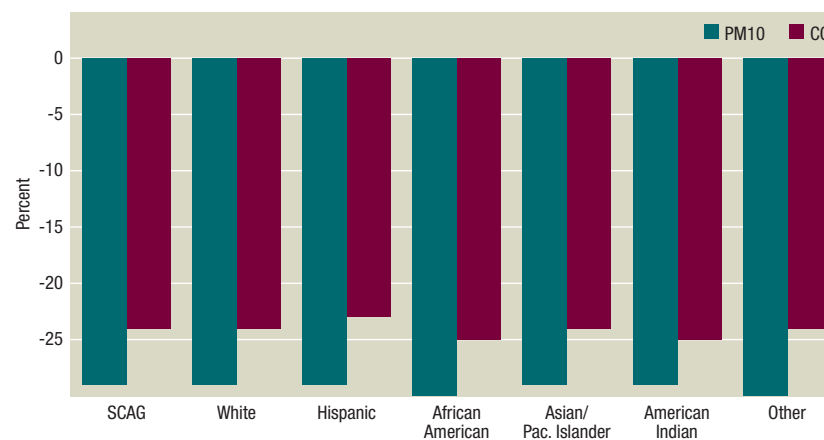


FIGURE 9 PERCENTAGE CHANGE IN 2035 POLLUTANT EMISSIONS BY ETHNIC/RACIAL CATEGORY (PLAN VS. BASELINE)



Overall, the region as a whole will generally experience an improvement in air quality via reductions in transportation-related emissions. However, emissions of CO and PM10 in some TAZ's will increase under the Plan compared to the Baseline conditions. This analysis did not show that there would be a

disproportionate impact on minority or low-income populations (see Figure 8: Percentage Change in 2035 Pollutant Emissions by Income Category and Figure 9: Percentage Change in 2035 Pollutant Emissions by Ethnic/Racial Category).

Aviation Noise Impacts

The SCAG Region supports the nation's largest regional airport system in terms of number of airports and aircraft operations, operating in a very complex airspace environment. The system has six established air carrier airports including Los Angeles International (LAX), Bob Hope (formerly Burbank), John Wayne, Long Beach, Ontario and Palm Springs. There are also four new and emerging air carrier airports in the Inland Empire and North Los Angeles County. These include San Bernardino International Airport (formerly Norton AFB), March Inland Port (joint use with March Air Reserve Base), Southern California Logistics Airport (formerly George AFB) and Palmdale Airport (joint use with Air Force Plant 42). The regional system also includes 45 general aviation airports and two commuter airports, for a total of 57 public use airports. There are significant challenges in meeting the future airport capacity needs of Southern California. One significant challenge is striking a balance between aviation capacity needs of Southern California with local quality of life constraints for the affected populations.

Projected noise impacts from aircraft operations at the region's airports in 2035 were modeled for inclusion in the PEIR for the RTP. For each airport, modeling produced a contour or isoline for the 65 dB Community Noise Equivalent Level (CNEL), a measure of noise that takes into account both the number and the timing of flights, as well as the mix of aircraft types. The Federal Aviation Administration (FAA) considers residences to be an "incompatible land use" with noise at or above 65dB this CNEL level.

To identify potentially impacted populations, the anticipated population within the 65 dB CNEL contour was calculated by the following steps:

1. Calculating the percentage of TAZs that would lie within a 65 dB CNEL contour.

2. Assigning the SCAG projected population to the TAZ.
3. Applying the demographic breakdown of the TAZ as a whole to the population within the 65 dB CNEL contour.

FIGURE 10 INCOME DISTRIBUTION IN THE SCAG REGION VS. AVIATION NOISE AREAS (2035)

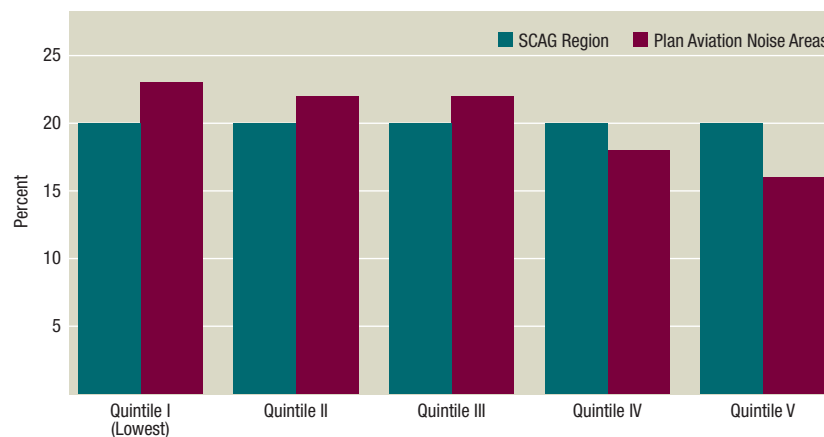


Figure 10: Income Distribution in the SCAG Region vs. Aviation Noise Areas (2035) demonstrates that there is a marginal disproportionate impact between each income group in the 2008 RTP, which is similar to the findings in the 2004 RTP. The disparity between the lowest and highest quintile group is approximately 7%. Each income quintile (by definition) contains 20% of the Region's households in 2035. Under the Regional Aviation Plan in the 2008 RTP, the lowest income group (Quintile 1) will represent 23% of the households impacted by noise above the 65 dB CNEL.

FIGURE 11 ETHNIC/RACIAL COMPOSITION IN THE SCAG REGION VS. AVIATION NOISE AREAS (2035)

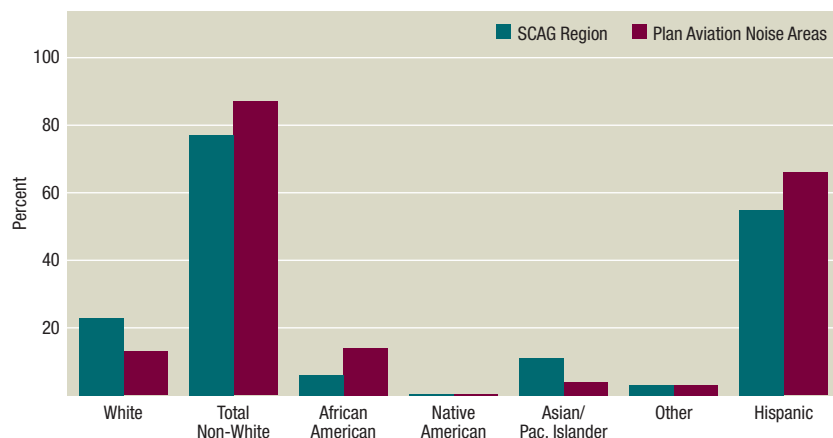


Figure 11: Ethnic/Racial Composition in the SCAG Region vs. Aviation Noise Areas (2035) indicates that the 2008 RTP is projected to have a disproportionate aviation noise impact on minority and low-income groups. Although non-whites comprise 77% of the region's population in 2035, they will make up 87% of those affected by the 65 dB CNEL contour. In particular, 66% of the impacted population will be Hispanics, which is a 20% increase from the 2004 RTP. It is also interesting to note that the number of impacted African-Americans, who represent 6% of the region's population, decreased 15% from the 2004 RTP.

The adopted SCAG Aviation Decentralization Strategy calls for relieving the pressure on LAX and Ontario, as well as relieving surface congestion in the surrounding areas, with its proposed ground access strategy. The Aviation Decentralization Strategy explores available airport capacity in the Inland Empire and North Los Angeles County, particularly Palmdale. With international service established at Palmdale and Ontario airports, the region would have a balanced system of three international airports, similar to the San Francisco Bay Area and New York regions.

This presents a number of advantages for nearby communities. A decentralized airport system will relieve pressure on constrained airports, minimize environmental impacts, such as noise, traffic, and encroachment on adjacent neighborhoods, and reduce stress on the region's surface transportation infrastructure. However, the primary challenge of decentralizing demand to these airports relates to the fact that the core of aviation demand will continue to reside in the urban areas of Los Angeles and Orange counties.

Although the gap between the income groups is projected to be a marginal difference, the environmental justice analysis results demonstrate that lower-income and minority residents still bear a disproportionate burden from aviation noise pollution resulting from the 2008 RTP. As such, it is critical to continue addressing this environmental justice issue.

Highway Noise Impacts

Noise associated with highway traffic depends on traffic volumes, vehicle speed, vehicle fleet mix (cars, trucks), as well as the location of the highway with respect to sensitive receptors. According to Federal Highway Administration (FHWA) guidance, noise impacts occur when noise levels increase substantially when compared to existing noise levels. For purposes of this analysis (consistent with FHWA guidance), noise increases of 3 dB along highways where noise levels are currently, or would be in the future, above 66 dB, are considered to be significant (regardless of adjacent land use).

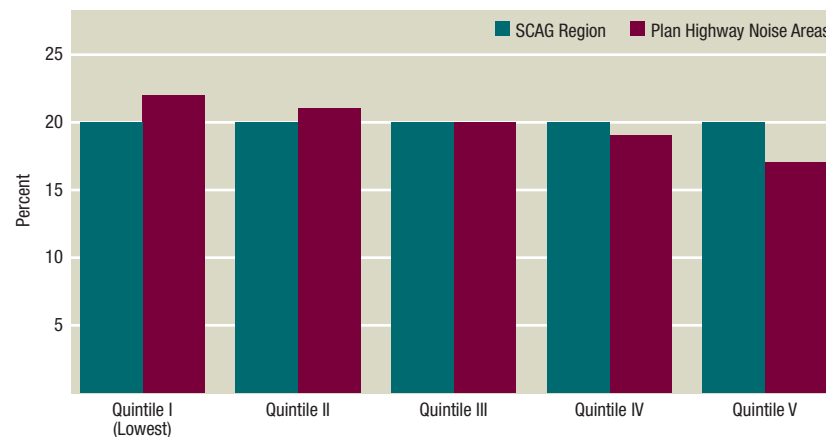
Highways that would be expected to have an increase of 3 dB or more include those where any of the following would occur: (1) the total traffic volumes increase by 100% compared to existing conditions; (2) the medium/heavy truck traffic volumes increase by 130% compared to existing conditions; or (3) the medium/heavy truck traffic volumes increase by 100% and there is an increase in other traffic volumes by 50%. These highway segments were identified using the results of SCAG's regional transportation model.

On some highways, there is no potential for noise levels to reach 66 dB. To eliminate these from the analysis, the following criteria were applied: (1) arterials where the FHWA's Traffic Noise Model (TNM) indicated that the motor

vehicle volume (and the percentage of medium/heavy trucks) would result in traffic noise levels less than 66 dB; (2) arterials where the calculated motor vehicle speed was less than 17 mph; or (3) freeways where the average volume-to-capacity ratio was equal to or greater than 1.0, which would result in vehicle speeds of less than 30 mph. If a highway met any one of these criteria, it was eliminated from further consideration.

For each highway segment where a significant increase in noise would occur, a 150-foot impact zone was determined to either side. Using GIS, the percentage of each affected TAZ's land area that fell within this zone was identified, and this percentage was applied to the demographic data forecast for this TAZ. This methodology was utilized in the 2004 RTP, as well. However, this contrasts with the 2001 RTP analysis, where no impact zone was identified and the entire affected TAZ was included, even though noise impacts occur adjacent to the freeway. This change in methodology made the analysis more precise. Also, in contrast to the aviation impact analysis, no percentage was applied for residential zoning. The highway noise analysis identified an impact even when a land use not sensitive to noise (for example, industrial) was located adjacent to a highway. The demographic characteristics of each impacted TAZ portion were aggregated and compared with the regional demographics to determine if there would be any disproportionate impacts to any of the demographic groups identified in Section I of this Appendix.

FIGURE 12 INCOME DISTRIBUTION IN THE SCAG REGION VS. HIGHWAY NOISE AREAS (2035)

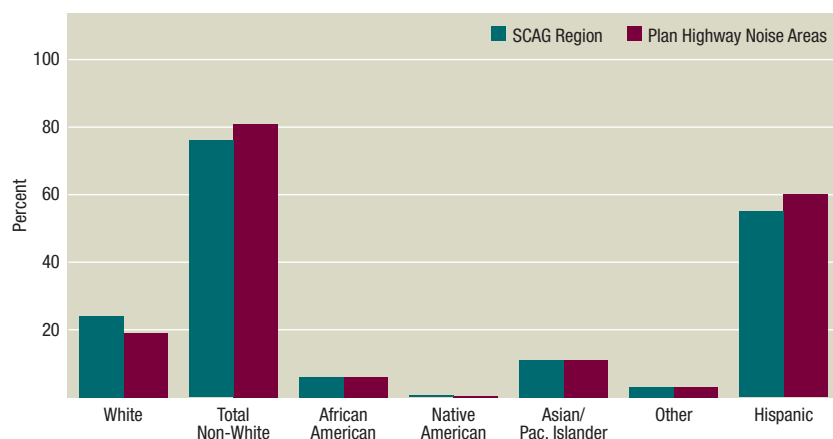


The demographic characteristics of each impacted TAZ portion were aggregated and compared with the regional demographics to determine if there would be any disproportionate impacts to any of the demographic groups identified. This approach, which was the same utilized in the 2004 RTP analysis, identified a marginal disproportionate impact between each income group (see Figure 12: Income Distribution in the SCAG Region vs. Highway Noise Areas 2035). The lowest income group will account for 22% of the affected population in 2035. There is a 5% difference between the lowest and the highest income quintiles.

The 2008 RTP also found that minority populations were primarily affected by highway noise impacts. Figure 13: Ethnic/Racial Composition in the SCAG Region vs. Highway Noise Areas (2035) indicates that in 2035, the region will be 76% Non-White, which also accounts for 81% of the affected population, in terms of highway noise. In contrast, 19% of the White population, which make up 24% of the region's population, will be adversely impacted by highway noise. Of the various ethnic groups, Hispanics are projected to experience the greatest disparity at 60%. This is a 27% increase from the results in the 2004 RTP.

The identification of these disparate highway noise impacts at the regional level can be attributed to a the issue of incompatible land use, where high-polluting transportation projects, such as freeway construction, airport expansions, or rail extension projects, are sited in minority populated neighborhoods. Protecting against this requires a corridor-level analysis for areas where burdens are concentrated.

FIGURE 13 ETHNIC/RACIAL COMPOSITION IN THE SCAG REGION VS. HIGHWAY NOISE AREAS (2035)



New Social Equity Elements

In addition to the performance measures analyzed above, the 2008 RTP environmental justice analysis has undertaken the new components. Summarized below are the new initiatives that have either directly or indirectly resulted from the previous environmental justice discussions and comments received.

Accessibility: In the 2004 RTP environmental justice analysis, SCAG analyzed the percentage of jobs accessible within 45 minutes. The 2008 RTP analysis instead used 30 minutes to calculate accessibility. SCAG staff determined that the 30 minute travel-time criterion was more indicative of accessibility to the locations of employment services.

Trips: In the 2008 RTP, both work and non-work trips were analyzed. Previous RTP environmental justice analysis only included work trips. In this analysis, both work and non-work trips were calculated for each TAZ. Incorporating non-work trips into the analysis provides a more accurate determination of allocation of benefits and burdens for each of the performance measures.

Conclusions

SCAG's performance indicators reflect a broad set of goals and objectives put forward for the region and its transportation system. The intention of the environmental justice analysis is to demonstrate that SCAG's planning processes and methods are responsive to imbalances caused by the development of the plans, programs, and policies in the 2008 RTP. An overview of the findings is listed below:

- **Accessibility:** The results indicate that accessibility to jobs by auto will remain relatively constant for all income groups. Improvement in accessibility by transit is higher for the lower income groups. All income groups should benefit from improvements in accessibility due to the 2008 RTP.
- **Plan Expenditures/Investments:** Under the Plan, approximately 68% of expenditures would be focused on the three lower income quintiles. In other words, transportation investments would go to modes likeliest to be used by lower-income groups. Also, under the 2008 RTP, Plan expenditures will be distributed more equitably on the basis of system usage by ethnic/racial groups.
- **Costs:** Overall, tax burdens are anticipated to fall heavily on higher-income groups. Thus, those with limited financial means will not pay a disproportionate amount of overall taxes.
- **Time Savings:** Overall, the benefits of time savings will be enjoyed by the lower income groups, who pay a smaller share of taxes.
- **Travel Distance Reductions:** The results indicate that the lowest quintile group will have the least amount of benefit accounting for 12% of auto

travel distance savings, while the highest quintile group will benefit the most. However, the taxes paid by the highest income group are anticipated to exceed their share of benefits.

- Environmental Impact Analyses: Overall, the region as a whole will generally experience an improvement in air quality via reductions in transportation-related emissions due to ongoing mobile source emission controls and investments in the Plan. Generally, air emissions will not disproportionately affect minorities and low-income groups. However, the results in the 2008 RTP analysis indicate that minority and low-income groups will be disproportionately impacted by aviation and highway noise.

The 2008 RTP environmental justice analysis sought to answer two core questions:

1. Are people worse or better off with or without the Plan?
2. Is there a disproportionate negative impact of the Plan on any demographic group?

Although these questions cannot fully be answered, the 2008 RTP seeks to identify and address Title VI of the Civil Rights Act and any environmental justice implications of the planning processes and investment decisions. It is critical for SCAG and policy-makers alike to ensure that their transportation programs, policies, and activities serve all segments of the region without generating disproportionately high and adverse effects.

In the face of continued population growth, sprawling urbanization, increasing annual vehicle miles traveled, and an expanding economy, policy-makers must make decisions that will have significant implications for the region's land use patterns, densities, nodes for growth and development, environmental health, livability, accessibility and equity. Accommodating the anticipated growth in the SCAG region in a sustainable way—by taking account of ecological, economic and social justice factors, while enhancing quality-of-life for present and future generations—represents the central challenge facing regional transportation planning in Southern California.

